REMARKS

Claims 1-55 are pending in the application.

Claims 1-55 stand rejected.

Claims 1, 13-15, 23-25, 33-35, 38, and 51-55 have been amended.

Claims 11-12, 21-22, 31-32, and 46-50 have been cancelled.

Claims 56-60 have been added.

Rejection of Claims Under 35 U.S.C. § 112

Claims 46-50 are rejected under 35 U.S. 112, second paragraph, as purportedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards to as the invention. Applicants have cancelled Claims 46-50, thus rendering the rejection moot. Applicants therefore respectfully request that the rejection be withdrawn.

Rejection of Claims Under 35 U.S.C. § 103

Claims 1-55 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakiso, U.S. Patent Publication No. 2004/0105390 (Sakiso) in view of Gai et al, U.S. Patent No. 6,535,491 B2 (Gai).

While not conceding that the cited references qualify as prior art, but instead to expedite prosecution, Applicants have chosen to respectfully disagree and traverse the rejection as follows. Applicants reserve the right, for example, in the continuing application, to establish that the cited references, or other references cited now or hereafter, do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed.

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For example, nothing in the cited passages of the combination of Sakiso and Gai discloses (or render obvious) "in response to said detecting, maintaining a communication channel between said downstream portion of said communications network and said upstream portion of said communications network by disabling a port of said network element coupled to a second link between said network element and a downstream portion of said communications network, wherein said second link is associated with said virtual network, and said port of said network element is disabled as a result of said port being associated with said virtual network," as recited in independent Claims 1, 15, 25, 35, and 38.

Page 3 of the present Final Office Action cites Figure 1 and paragraph [0028] of Saksio and Figure 1 and col. 15, lines 48-65 of Gai as disclosing the recited elements of the independent claims.

The cited passage of Saksio states:

In the following there is described the idea of the present invention. In the failed 2nd stage LAN switch SW7 it has been defined that the link LSW7 to router R1, called up-link, is a critical link and the so-called down-links LSW1, LSW3, LSW5 to the 1st stage LAN switches SW1, SW3, SW5, are dependent of the critical up-link LSW7 . Thus, if the up-link LSW7 fails, all down-links LSW1, LSW3, LSW5 are set in the link-down state. Likewise, in the 1st stage LAN switches SW1, SW3, SW5, the links LSW1, LSW3, LSW5 to the 2nd stage LAN switch SW7 are defined to be as critical and links $L1_i$, $L2_1$, $L3_1$, $L4_1$, $L5_1$, $L6_1$, $L7_1$, $L8_1$, $L9_1$ to the hosts 1, 2, . . . , 9, down-links, are defined to be dependent of the up-links LSW1, LSW3, LSW5. The net result is that if the 2nd stage LAN switch or its link to the router fails, failure 2, then the link-down state is propagated down to hosts Host 1, . . . , Host 9 . The same will happen if the link between a 1st stage and 2nd stage LAN switch fails. Thus, the hosts become very quickly aware of a failure in the LAN and can start recovery immediately.

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Also, the cited passage of Gai states:

> A computer network, such as network 100 (FIG. 1), may also be segregated into a series of network groups. For example, U.S. Pat. No. 5,394,402, issued on Feb. 28, 1995 to Floyd E. Ross (the "402 Patent"), which is hereby incorporated by referenced (*sic*) in its entirety, discloses an arrangement that is capable of associating any port of a switch with any particular segregated network group. Specifically, according to the '402 Patent, any number of physical ports of a particular switch may be associated with any number of groups within the switch by using a virtual Local area network (VLAN) arrangement that virtually associates the port with a particular VLAN designation. More specifically, Ross discloses a switch or hub for a segmented virtual local area network with shared media access that associates VLAN designations with at least one local port and further associates those VLAN designations with messages transmitted from any of the ports to which the VLAN designation has been assigned.

As an initial matter, a person with skill in the art would not expect the cited passages of Saskio and Gai to disclose (or render obvious) the recited elements of the independent claims because the Saskio reference teaches away from the Gai reference, rendering the combination not only inoperative, but ill-advised. The Saskio reference explicitly names the Spanning Tree Protocol (STP) as a less-than-optimal solution for maintaining a redundant local area network that requires minimal recovery times. As stated in paragraph [0014] of Saskio, "[t]he standard method in a redundant local area network is to use the Spanning Tree Protocol (STP) or some vendor-specific proprietary solution . . . However, due to the long recovery time needed, the STP is not suitable for environments requiring fast (a maximum of few seconds) recovery." On the other hand, the Gai reference discloses a "method and apparatus for rapidly reconfiguring computer networks using a spanning tree algorithm" (*See also* Title, col. 16, lines 23-30 of Gai). Thus, one with skill in the art, armed with the Saskio reference would not expect to combine the Gai reference, which employs a spanning tree protocol. The fact that the inventor "proceeded contrary to the accepted wisdom of the prior art [teaching away] is

"strong evidence of non-obviousness." *See* W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 U.S.P.Q. 303, 312 (Fed. Cir. 1983). Thus, the independent claims are patentable over the cited passages of the combination of Saskio and Gai because the combination of the Saskio and Gai is improper.

Moreover, nothing in the cited passages of the combination of Saskio and Gai discloses, teaches, or suggests anything regarding "in response to said detecting, maintaining a communication channel between said downstream portion of said communications network and said upstream portion of said communications network by disabling a port of said network element coupled to a second link between said network element and a downstream portion of said communications network, wherein said second link is associated with said virtual network, and said port of said network element is disabled as a result of said port being associated with said virtual network," as recited in independent Claims 1, 15, 25, 35, and 38.

As discussed above, the cited passages of Saskio discloses the detection of a failure of a critical link and the propagation of a link-down state to links dependent on the critical link. Paragraph [0028] of Saskio. The cited passages of Gai merely disclose the exchange of messages between members of a virtual local area network where various portions of the network execute a spanning tree algorithm. Col, 15, lines 46-65 of Gai. However, causal relationship between the disabling of a port of the network element "as a result of said port being associated with said virtual network" is not fairly disclosed, taught, or suggested in the combination of Saskio and Gai, even if the combination of Saskio and Gai was appropriate.

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Applicants have also added Claims 56-60. Support for the newly-added claims can be found in at least paragraph [0027] of the Specification.
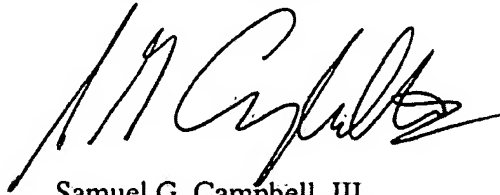
Hence, the combination of Saskio and Gai does not disclose each and every element of independent Claims 1, 15, 25, 35, and 38. Independent Claims 1, 15, 25, 35, and 38, and all dependent claims are therefore patentable over the combination of Saskio and Gai. Applicants respectfully request that the rejection be withdrawn.

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CONCLUSION

In view of the amendments and remarks set forth herein, the application and the claims therein are believed to be in condition for allowance without any further examination and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned.

If any extensions of time under 37 C.F.R. § 1.136(a) are required in order for this submission to be considered timely, Applicant hereby petitions for such extensions. Applicant also hereby authorizes that any fees due for such extensions or any other fee associated with this submission, as specified in 37 C.F.R. § 1.16 or § 1.17, be charged to Deposit Account 502306.

Respectfully submitted,

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